

A 4  
--The following are arrays (access number: SA16SRRNA, length 1334)  
for the 16S portion of Streptococcus anginosus bacteria, SEQ ID NO: 2.--

Please replace the paragraph beginning page <sup>55</sup>~~54~~, line <sup>6</sup>~~16~~, with the  
following rewritten paragraph:

A 5  
--For the above arrays (SEQ ID NO: 2), the present inventor employed the  
present invention to conduct an experiment in which a search was conducted for all the  
patterns that had a length of at least 10 and that has appeared at least two times. The  
search results are shown below. Since the arrays searched for in the third embodiment  
were shorter than those in the first or the second embodiment, a reduced number of  
patterns were found.--

#### **REMARKS**

The Applicant has filed the present Amendment pursuant in reply to the  
Official Action of January 7, 2003, and the Applicant further believes the Amendment to  
be fully responsive to the Official Action for reasons set forth below in greater detail.

In the present Official Action, the Examiner first notified the Applicant of  
the required timing for the correction of the drawings and required the Applicant to  
submit drawing corrections. The Examiner further advised the Applicant that the  
application fails to comply with 237 C.F.R. §1.821 through §1.825, because the  
specification lacks SEQ ID NOs cited along with each sequence listing. Lastly, the  
Examiner required a restriction of the application pursuant to 35 U.S.C. §1.121.

Regarding the correction of the drawings, the Applicant has submitted  
concurrently herewith under separate cover the formal drawings for Figures 1-7. Please

substitute the Figures 1-7 currently of record in the above-identified application with the submitted formal drawings.

Regarding the sequences listings in the above-identified application. The Applicant first notes that on November 5, 2001, the Applicant has submitted to the United States Patent Trademark Office (USPTO) a paper copy of the sequence listings in the above-identified application, the associated computer readable form of the sequence listings and a statement pursuant to 37 C.F.R. 1.821(f). In this Amendment, the Applicant has amended the specification as recited herein to identify the sequence listings with their associated SEQ ID NOs. For example, the sequence listing beginning on page 41 was identified as SEQ ID No: 1, and the sequence listing beginning on page 51 was identified as SEQ ID NO: 2. The foregoing SEQ IDs correspond to the SEQ IDs of the sequence listings submitted on November 5, 2001. In addition, the Applicant took care to identify the SEQ IDs associated with sequence listings from which patterns were searched and obtained via the computer system of the present invention. Applicant respectfully submits that no new subject matter has been added to the above-identified application and concurrently herewith, the Applicant has also provided a separate statement under 37 C.F.R. §1.821(g) stating that no new subject matter has been added.

Attached hereto is a marked-up version of changes made to the specification by the present Amendment, captioned **“VERSION WITH MARKINGS TO SHOW CHANGES MADE”**.

Regarding the Restriction Requirement, the Applicant elects, without traverse, Group II, Specie B (i.e., Claim 2) for continued prosecution on the merits in the above-identified patent application.

Regarding the Restriction Requirement, the Applicant elects, without traverse, Group II, Specie B (i.e., Claim 2) for continued prosecution on the merits in the above-identified patent application.

In the Official Action, the Examiner has subjected Claim 1-11 of the above-identified application to a requirement for restriction pursuant 35 U.S.C. §121 as follows:

- Group I. - Claim 1 drawn to a method for changing array information based on complementary variables, classified in class 702, subclass 19;
- Group II. - Claims 2-8 drawn to a method for analyzing the structure of an array, classified in class 702, subclass 19. This group is further subject to a Specie restriction: Specie A – utilizing suffix tree; and Specie B – not utilizing suffix tree;
- Group III. - Claim 9, drawn to an apparatus for analyzing the structure of an array, classified in class 700, subclass 90;
- Group IV. - Claim 10 drawn to storage medium, classified in class 211, subclass 41.12; and
- Group V. - Claims 11, drawn to transmission medium, classified in class 370, subclass 235.

In order to be fully responsive to the requirement for restriction imposed in the present Official Action, the Applicant has elected, without traverse, to prosecute the subject matter of Group II, Specie B (i.e., Claim 2), in the above-identified

application and reserves the right to file one or more divisional applications directed to the non-elected subject matter of Groups I, II, III, IV and V (i.e., Claims 1 and 3-11).

The Applicant respectfully requests favorable consideration and allowance of the above-identified application. If the Examiner believes a telephone conference might expedite the allowance of this application, the Applicant respectfully request that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Steven Fischman', with a long horizontal flourish extending to the right.

Steven Fischman

Registration No. 34,594

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AGV/SF:gc  
attachments

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

The paragraph beginning on page 41, line 20, has been amended as follows:

--The following are all the HIV (Human Immunodeficiency Virus) RNA arrays (accession number of arrays: K03455; length 9719), SEQ ID NO: 1.--

The paragraph beginning on page 46, line 13, has been amended as follows:

--For the above arrays (SEQ ID NO: 1), the present inventor employed the present invention to conduct an experiment in which a search was conducted for all the patterns that had a length of at least 10 and that has appeared at least three times. The search results are shown below.--

The paragraph beginning on page 50, line 31, has been amended as follows:

--Using the same arrays (SEQ ID NO: = 1) as those used in the first embodiment, the present inventor employed the present invention to conduct an experiment in which a search was conducted for all the patterns that had a length of at least 8 and that appeared at least 7 times. The search results are shown below.--

The paragraph beginning on page 54, line 16, has been amended as follows:

--The following are arrays (access number: SA16SRRNA, length 1334) for the 16S portion of Streptococcus anginosus bacteria, SEQ ID NO: 2.--

The paragraph beginning on page 54, line 16, has been amended as follows:

--For the above arrays (SEQ ID NO: 2), the present inventor employed the present invention to conduct an experiment in which a search was conducted for all the patterns that had a length of at least 10 and that has appeared at least two times. The search results are shown below. Since the arrays searched for in the third embodiment were shorter than those in the first or the second embodiment, a reduced number of patterns were found.--